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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,120	02/13/2004	Hiroshi Funakubo	03500.101454.	4978

5514            7590            06/30/2005  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

AGUIRRECHEA, JAYDI A

ART UNIT            PAPER NUMBER

2834

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

<b>Application No.</b> 10/777,120	<b>Applicant(s)</b> FUNAKUBO ET AL.	
<b>Examiner</b> Jaydi A. Aguirrechea	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 20 May 2005.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-34 is/are pending in the application.
  - 4a) Of the above claim(s) 31-33 is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-30 and 34 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All b)  Some \* c)  None of:
      - 1.  Certified copies of the priority documents have been received.
      - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/04.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of claims 1-24 in the reply filed on 4/14/05 is acknowledged. The traversal is on the ground(s) that claims 25-30 should be examined along with claims 1-24. This is found persuasive and claims 1-30 and 34 will be examined together.
2. Claims 31 - 33 drawn to the method of making the product are considered to be withdrawn without traverse.

### *Claim Objections*

3. Claim 32 is objected to because of the following informalities: Claim 32 should be dependent from claim 31 since it is claiming a method and claim 1 is directed to a device.
4. Claims 20, 21 and 34 are objected to because in order to claim a Markush group the limitation should read "at least one selected from the group of a, b and c".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-30 and 34 rejected under 35 U.S.C. 102(b) as being anticipated by EP 0513478 to Mitsubishi Materials Corp. (Ogi et al.)

Ogi discloses a lead zirconate titanate-based thin film, wherein the film is an epitaxial crystal thin film on a substrate, said thin film has a chemical composition represented by the

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general formula  $Pb_{1-x}Ln_xZr_yTi_{1-y}O_3$ , wherein Ln represents any one selected from the group consisting of lanthanum, lanthanoid elements, niobium, calcium, barium, strontium, iron, manganese and tin; and  $0 \leq x \leq 1$ ,  $0.43 \leq y \leq 0.65$  and wherein the film orientation is  $\{1\ 1\ 1\}$  or within  $15^\circ$  from  $\{1\ 1\ 1\}$ . Specifically Ogi discloses  $x$  having a value of 0.5 and  $y$  having a value  $y=0.48$ .

With regards to claims 3-8, the limitations are not structural limitations and therefore do not differentiate from the prior art.

With regards to claims 9-10, the relative permittivity or dielectric constant is an inherent characteristic of the material, and therefore the limitation is anticipated by the prior art.

With regards to claims 11-13, Ogi discloses the film oriented in the plane  $\{1\ 1\ 1\}$ .

With regards to claims 14-16, Ogi discloses a platinum film formed on a silicon wafer oriented in the  $\{1\ 1\ 1\}$  axis.

With regards to claim 17, it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961). The examiner has given little patentable weight to this limitation.

With regards to claims 18-19, Ogi anticipates the invention giving values of  $x=0.5$  and  $y$  having a value  $y=0.48$ .

With regards to claims 20 and 21, the crystal structure is inherent in the perovskite structure disclosed in the reference.

With regards to claim 22, Ogi discloses a platinum layer on top of the silicon substrate.

With regards to claims 23-25, Ogi anticipates the invention as disclosed above.

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With regards to claims 26-30, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

With regards to claim 34, Ogi anticipates the claimed invention as disclosed above.


***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaydi A. Aguirrechea whose telephone number is 571-272-2018. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JAA  
6/25/05

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800